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CALIFORNIA FOREST EXPERIMENT STATION

Gowen Elapsed Time Slide Rule
Gowen Timekeeper's Slide Rule

George M. Gowen while project leader in fire control at this Station devised a slide rule to aid paymasters in the job of checking time slips and computing payments to be made to fire fighters.

Later, he devised another rule for computing elapsed time on fire reports. To anyone who has had the work of computing the elapsed time data on a large number of fire reports, the desirability of some other method of computation than the use of pencil and paper with frequent reference to the watch dial is quite apparent.

Timekeeper's Slide Rule.

To illustrate the use of the Timekeeper's Rule, an example is given:

> A fire fighter went on shift at 4:35 A.M. and off shift at 7:40 P.M. What were the hours worked and the total amount due at the rate of 35¢ per hour?

The index of the rule is the number 12 of the fixed scale. Set 4:30 on the unshaded portion of the movable scale under the index twelve. Hold the movable circle fixed in this position. Move the rate per hour slide until the index coincides with the nearest off shift hour; in this case 7:30. Read opposite the rate per hour the total amount due; in this case $5.25.

With practice a slide rule of this kind will be of aid to timekeepers in speedily and correctly figuring time earned. The rule will also reduce the mental fatigue of the paymaster who must check a large volume of time slips.

Elapsed Time Slide Rule.

Those who have had the job of checking elapsed time on fire reports are fully aware of the errors which creep into computations of this kind. Fire reports which have been checked once are frequently found to be in error.

The present device is especially recommended for use in checking large

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numbers of fire reports in the Supervisor's Office. It would be a useful tool, however, in any District Ranger's Office.

Example:

A fire starts at 1:32 P.M. and is brought under control at 10:45 A.M. of the succeeding day. What is the control time?

The index for hours is the arrow at 24 on the outer circle. The index for minutes is beneath the hour index.

1. Under the hour index set 1:30 P.M.
2. Under the minute index set 32
3. Opposite 10:40 A.M. on second circle read 21 hours plus
4. Opposite 45 minutes on inner circle read 13 minutes.
5. Control time = 21 hours, 13 minutes.

This is a simplification of the method of calculation with pencil and paper as a trial will demonstrate.

The enclosed slide rules are for your use. Your comments on the rules will be appreciated.

If enough interest in this development is shown, a manufacturer will be interested in developing the rules. The price of the slide rules should be less than fifty cents each.